

radiation of a blackened vessel of boiling water; this gave no decisive result.

On repeating the experiment with a smoothing iron at the temperature ordinarily used, the surface in about a minute glowed brightly. There is this difference from the excitement by bright daylight, or gaslight, that the glow is comparatively transient.

This renders it probable that a cylinder of iron heated by a spirit flame duly concealed would act as M. le Bon's dark lamp does.

A. M. M.

MEXICAN SYMBOLISM.¹

A RESIDENCE for some years among the Huichol Indians of Mexico has enabled Dr. Carl Lumholtz to enrich ethnology with a wonderfully detailed and exhaustive memoir on their symbolism, and our thanks are due, not only to the author, but to the authorities of the American Museum of Natural History for the appearance of this most valuable study, which is lavishly illustrated by more than three hundred figures in the text and four plates, three of which are coloured heliotypes.

It is extremely fortunate for students of American archæology and comparative religion that the symbolism of pagan Mexican Indians should be minutely studied, as this will throw light on the meaning of the inscriptions on ancient Mexican monuments, and will afford illustrations for the comparative studies of cults.

All sacred things are symbols to primitive man, writes Dr. Lumholtz, and the Huichols seem literally to have no end of them. Religion is to them a personal matter, not an institution, and therefore their life is religious, and from the cradle to the grave wrapped up in symbolism. From their symbolism it may be inferred that the main thought of their prayers is food—corn, beans and squashes. Even in the hunting of the deer, the primary consideration is that the success of the chase means good crops of corn. Agriculture depends upon rain, therefore most of the symbolic objects express, first of all, prayers for rain, and, by implication, for food, and then prayers for health, good fortune and long life. In many cases the supplicant himself is represented on symbolic objects in the shape of a human figure or a heart; but in others the god is thus depicted.

The act of sending a prayer to a god is symbolised by attaching a representation of the prayer to an arrow, the painting of the rearshaft of the arrow is symbolic of the special deity to whom the prayer is offered. In other cases, the prayer is directed to the god by placing the symbolic object representing the prayer to the temple of the deity, or by tying it to his chair, or placing it in his votive bowl.

Speaking in a general way, individual or personal prayers are conveyed by arrows or back-shields; these latter are symbols of the rectangular shield that the Huichol warrior wore to protect his back. The main idea of the back-shield is that it protects against the heat of the sun, and prayers expressed by it are largely for health, but also for protection against evil, sickness, accident, &c. Back-shields represent prayers of all kinds, such as prayers for rain, good crops, and even that the supplicant may have children; it should be remembered that the same mat served the warrior as back-shield and bed. Tribal prayers were mostly conveyed by the usually circular front-shields. Personal and tribal prayers may also be conveyed by "eyes." These are crosses of bamboo splints, or straw interwoven with coloured threads in the form of a diamond. The eye is the symbol of the power of seeing and understanding unknown things; the prayer expressed by this symbolic object is that the eye of the god may rest on the supplicant.

The diminutive sandals of an ancient pattern that are

¹ "Symbolism of the Huichol Indians," by Carl Lumholtz. Memoirs of the American Museum of Natural History. Vol. iii. Anthropology II. to. Pp. 228. (1900.)

attached to a prayer-arrow may be taken as an example of symbolism. Such sandals are now only worn by shamans at the greatest feast of the Huichols—that which is held for the underworld. They therefore become the symbol of a prayer that this feast may come off; also that nothing untoward may happen to the shaman at this feast; but as the feast cannot be celebrated unless a deer has been killed, a pair of such sandals also expresses a prayer for luck in killing deer. In olden time only men wore sandals, which at that time were of the ancient pattern referred to; thus these sandals are also used to express a woman's prayer for a husband.

Practically the same design may be the symbol of various objects, for example, curved lines in general indicate serpents, but when there are dots between curved lines they mean ears of corn in the fields. Bands of curved lines with dots between them are the tracks of wind, rain and water in the fields. Zigzag lines stand not only for rain-serpents but also for lightning, the sea surrounding the world, hills and valleys projected on the horizon, bean plants and squash vines. A cross refers to the four cardinal points, but also signifies money, sparks, &c.

There is a further complication in the strong tendency to see analogies, even the most heterogeneous phenomena are considered as identical. For instance, the following are some of the objects that are believed to be serpents: most of the gods and all the goddesses, the pools of water and springs in which the deities live, the wind sweeping through the grass, the moving sea and ripples of water, flowing rivers, darting lightning, rain, fire, smoke, clouds, their own flowing hair, their girdle ribbons, pouches, wristlets, anklets, maize, bow, arrow, tobacco gourd, trails of men on the land—all are considered as serpents.

On reading this suggestive memoir, one is struck with the fact that the religion of the Huichols contains elements appropriate to two distinct stages of culture. In former ages their ancestors were evidently nomad hunters, who subsisted mainly on the meat of deer, which they killed with bows and arrows. Probably at this period they shot their arrows in the air in magical rites, so as to ensure the killing of deer; possibly also they attached pictographs or symbols to the arrows as messages or prayers to the gods, but this was almost certainly a later phase. On acquiring the art of agriculture, they continued the old practices for ensuring a sufficient food supply. According to the Huichol myths, corn was once deer, and at the feast preparatory to the clearing of the cornfields the Huichols drink the broth of deer-meat, which they call "making corn," and the blood of deer is sprinkled on the grains of corn before they are sown, that they may become equally sustaining, for the deer is the symbol of sustenance and fertility.

Departmental gods generally originate when a people become settled and take to agriculture. The prayer arrows would then be deposited in the houses of the gods. At this time, as at present, the moving principle in the religion of the Huichols was the desire of producing rain, and thus successfully raising corn, which now is their principal food; therefore is it that most of the symbolic objects express first of all prayers for rain and then for other blessings. Since the deer represents sustenance, it may easily be perceived why in their myths water sprang from the forehead of a deer.

There is no space to enter into the cult of that remarkable plant the "Hikuli" (*Anhalonium lewinii*), which is to them the plant of life—the life of the deer and the corn—and adds a further mystical element to this instructive transitional religion. The philosophy of life of these people may be best summed up in a statement by one of themselves. "To pray for luck to the god of fire and to put up snares for the deer—that is, to lead a perfect life."

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